

E A R T H  T E C H
A **tyco** INTERNATIONAL LTD. COMPANY

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	96-00099-00-BR	DUPAGE	62	53
STA. 13+25.00		TO STA. 16+55.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET. S22 OF S22

Technical drawing of a rectangular scupper. The overall width is $1'-8\frac{1}{16}"$. The height is $4\frac{1}{2}"$. The drawing shows a top-down view with a central vertical slot and four horizontal slots. There are four $\frac{1}{2}"$ diameter stainless steel hexagon head bolts with lock washers, two on each long side. A circular detail view on the right shows the bolt pattern and the requirement to drill and tap $\frac{1}{2}"-13 \times \frac{3}{4}"$ DP for $\frac{1}{2}"$ diameter anchor studs at 8 locations. Section lines A-A and B-B are indicated.

Drill and tap scupper for 4 $\frac{1}{2}"$ ϕ stainless steel hexagon head bolts with lock washers

Drill and tap $\frac{1}{2}"-13 \times \frac{3}{4}"$ DP. for $\frac{1}{2}"$ ϕ Anchor Studs 8 locations

Technical drawing of a circular flange. The drawing shows a top view of a circular part with a central hole. The outer diameter is labeled as 10" O.D. The inner diameter is labeled as 6" I.D. The thickness of the flange is indicated as 2" on both the left and right sides. There are 8 holes, each with a diameter of $\frac{9}{16}$ " ϕ , arranged in a circular pattern. The diameter of this hole circle is labeled as 8 $\frac{3}{4}$ " ϕ bolt circle. The drawing includes a center line and a dashed line representing the inner hole.

Technical drawing of a circular plate with the following dimensions and specifications:

- Overall Outer Diameter (O.D.): 10"
- Inner Diameter (I.D.): 6"
- Plate Thickness: 2"
- 8 holes are drilled and tapped on an 8 $\frac{3}{4}$ " ϕ bolt circle.
- 2 blind holes are 1 $\frac{1}{4}$ " deep.
- 6 thru holes.

Callout text: Drill and tap 8 holes for $\frac{1}{2}$ "-13 bolts on an 8 $\frac{3}{4}$ " ϕ bolt circle. (2 blind holes are 1 $\frac{1}{4}$ " deep, 6 thru holes)

Technical drawing of a mechanical part, likely a bracket or support. The drawing shows a cross-section with a central rectangular cutout. The top surface is dimensioned with a total width of $1\frac{1}{2}''$ and a cutout width of $1\frac{1}{4}''$. The bottom surface is dimensioned with a total width of $5\frac{5}{8}''$. The vertical height of the part is $1\frac{1}{2}''$. A fillet radius of $\frac{1}{8}'' R \text{ typ.}$ is indicated on the inner corners of the cutout. The part is shown in a perspective view with a break line on the left side.

A diagram of a 90-degree corner joint. The horizontal leg has a length of 6 inches, and the vertical leg has a height of 6 inches. There is a 1/2 inch gap between the two legs at the corner.

Technical drawing of a mechanical part with the following dimensions and features:

- Overall length: $7\frac{1}{2}"$
- Segment lengths: $2"$, $2\frac{3}{16}"$, $1\frac{17}{16}"$, $1\frac{7}{8}"$
- Vertical dimensions: $1\frac{13}{16}"$, $1\frac{1}{4}"$
- Curved features: $3\frac{3}{4}" R$, $2\frac{1}{8}" R$, $1\frac{1}{4}" R$
- Draft angles: 5° Draft typ., 5° Draft, 10° Draft
- Other dimensions: $3"$ R, $7\frac{1}{8}"$, $1\frac{1}{2}"$

See sheet S1 and S6 for scupper location.

2- #5 a (E) bars at 4" cts.
(2'-0" long) tied to bottom of
top reinforcement mat, typ.

24" dia.

2" x 12"

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-12	Each	4

REVISIONS		CITY OF NAPERVILLE
NAME	DATE	
		DRAINAGE SCUPPER DS-12 DETAILS
		MAIN STREET BRIDGE OVER
		WEST BRANCH DUPAGE RIVER
		STRUCTURE NO. 022-6755 - STA. 15+00.00
		SCALE:
		DRAWN BY JHR
		CHECKED BY SCD
		DATE: JULY 9, 2004